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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,000	06/09/2006	Xiaorong You	ES-4676-957	6123
97561 7590 11/17/2011 Nixon & Vanderhye PC / DSM Desotech Inc. 11th Floor, 901 North Glebe Road Arlington, VA 22203				
EXAMINER				
REDDICK, MARIE L				
ART UNIT		PAPER NUMBER		
1762				
MAIL DATE		DELIVERY MODE		
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary****Application No.**

10/565,000

**Applicant(s)**

YOU, XIAORONG

**Examiner**

MARIE REDDICK

**Art Unit**

1762

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 May 2011 and 09 September 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 5) ☒ Claim(s) 1-5, 13-17 and 21-26 is/are pending in the application.
- 5a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 6) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 7) ☒ Claim(s) 1-5, 13-17 and 21-26 is/are rejected.
- 8) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 9) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 05/24/11.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement filed 05/24/11 has been considered by the Examiner.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
4. Claims 1-5, 13-17 and 21-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Melisaris et al (US 6,099,787) in combination with Gummeson (US 2002/0198289).

Melisaris et al teach radiation curable compositions defined basically as containing i) at least one radiation curable component, ii) a filler, iii) at least one photoinitiator, iv) a thixotropic agent, v) a flow-control agent, and vi) other conventional additives wherein, the at least one radiation curable component includes 70-95 % by weight of cationically curable compounds (epoxy compounds such as 3, 4-epoxycyclohexanecarboxylate, epoxy resins which include homopolymers and

copolymers of polyacrylate and polymethacrylate glycidyl esters and mixtures thereof and 1-30 % by weight of free-radically curable compounds which include mono-, di- and poly(meth)acrylates having functionality up to 9, the filler, in an amount of from about 2-90 % by weight, includes untreated and treated silica compounds, the at least one photoinitiator includes a cationic photoinitiator and a free-radical initiator, the thixotropic agent includes Aerosil R-972 (fumed silica) and the other conventional additives, in an amount up to 20 % by weight, include stabilizers, pigments, wetting agents, surfactants, flow control agents, dyes, etc. (Abstract, col. 1, lines 8-18, cols. 3-7, cols. 9-19, the Runs, TABLES 1 and 2 and claims of Melisarís et al and claims 1-5, 13-17 and 21-26).

Melisaris et al differ basically from the claimed invention as per the non-express disclosure of an embodiment directed to the specifically defined flow aid selected from the group consisting of a polyalkyleneoxide-modified polydimethylsiloxane and an ethyl acrylate-2-ethylhexyl acrylate copolymer (claims 1, 2 and 16).

Gummeson teaches UV curable compositions, similar to the radiation curable compositions of Melisarís et al, defined basically as containing a water/organic solvent carrier medium, a colorant, a UV curable resin, a photoinitiator and other conventional additives wherein the UV curable resins include epoxy and urethane resins, the colorant includes anionic or cationic dyes or pigments with or without a dispersing agent and the other conventional additives include penetrants, humectants, polymeric chemical additives such as polyvinylpyrrolidinone, biocides, surfactants such as Silwet L-7607 (a polyalkyleneoxide-modified polydimethylsiloxane), etc. (Abstract, paragraphs [0020]-[0079], [0090]-[0105], Runs inclusive, and the claims of Gummeson).

Therefore, one having ordinary skill in the art, at the time of the invention, would have found it obvious to modify the radiation curable composition of Melisaris et al by adding the conventionally well known surfactant taught by Gummeson to the radiation curable composition of Melisaris et al and with a reasonable expectation of obtaining the expected additive effect, absent some evidence of unusual or unexpected results. **COMBINING EQUIVALENTS KNOWN FOR THE SAME**

**PURPOSE:** "It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose. [T]he idea of combining them flows logically from their having been individually taught in the prior art" (In re Kerkhoven, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980)).

While Gummeson does not recognize the polyalkyleneoxide-modified polydimethylsiloxane (Silwet L-7607) as a flow aid, a new use for an otherwise old or obvious compound/composition cannot render a claim to the composition patentable (In re Zierden, 162 USPQ 102 (CCPA 1969)).

As to the specifically defined compositional components, in terms of content (claim 16), one having ordinary skill in the art, at the time of the invention, would have found it obvious to modify Melisaris et al by optimizing the radiation curable composition of Melisaris et al, in terms of content of compositional components as suggested (col. 9, lines 66-67, col. 10, lines 1-2, col. 11, lines 45-55, col. 12, lines 56-67 and TABLES 1 & 2 and the claims of Melisaris et al), such involving only routine experimentation, without undue burden and with a reasonable expectation of success. **Optimization Within**

**Prior Art Conditions or Through Routine Experimentation:** Generally,

differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. “[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.” In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

As to the “viscosity reducible” limitation, the Examiner has a reasonable basis for believing that this limitation may be met by the composition of Melisaris et al since the radiation curable composition of Melisaris et al, as modified, is essentially the same as the claimed viscosity reducible radiation curable composition. It is further believed that the “viscosity”, “filler settling speed”, and “thixotropic index” limitations, if not taught, may very well be met by the radiation curable composition of Melisaris et al since the composition of Melisaris et al, as modified, is essentially the same as the claimed composition and in the absence of the USPTO having at its disposal the tools and facilities deemed necessary to make physical determinations of this sort. **ONCE A REFERENCE TEACHING PRODUCT APPEARING TO BE SUBSTANTIALLY IDENTICAL IS MADE THE BASIS OF A REJECTION, AND THE EXAMINER PRESENTS EVIDENCE OR REASONING TENDING TO SHOW INHERENCY, THE BURDEN SHIFTS TO THE APPLICANT TO SHOW AN UNOBVIOUS DIFFERENCE:** “[T]he PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his [or her] claimed product. Whether the rejection is based on inherency’ under 35 U.S.C. 102, on prima facie obviousness’ under 35 U.S.C. 103, jointly or alternatively, the burden of

proof is the same.” The burden of proof is similar to that required with respect to product-by-process claims. In re Fitzgerald, 619 F.2d 67, 70, 205 USPQ 594, 596 (CCPA 1980) (quoting In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977)).

***Response to Arguments***

5. Applicant’s arguments, see pages 11-13, filed 09/09/11, with respect to the Claim Objections (1, 2, 16 and 26), the Rejection of claims 25 and 26 under 35 USC 112, first paragraph and the Rejection of claims 21 and 24-26 under 35 USC 112, 2<sup>nd</sup> paragraph have been fully considered and are persuasive. These issues have been resolved and therefore have been withdrawn.

6. The indicated allowability of claims 1-5, 13-17 and 21-26 is herein regrettably rescinded in view of the newly discovered reference(s) to Gummesson (US 2002/0198289) cited by Applicant in the IDS of 05/24/11. The rejection based on the newly cited reference(s) is as set forth supra.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARIE REDDICK whose telephone number is (571)272-5816. The examiner can normally be reached on Mon. - Fri. 7:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, WU DAVID can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/MR/  
11/15/11

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